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# UNITED STATES PATENT AND TRADEMARK OFFICE

### BEFORE THE PATENT TRIAL AND APPEAL BOARD

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Ex parte GABRIEL A. BURNETT and YUANXIN CHARLES HU

\_\_\_\_

Appeal 2014-001532 Application 13/310,047<sup>1</sup> Technology Center 3600

Before, JOSEPH A. FISCHETTI, KENNETH G. SCHOPFER, and MATTHEW S. MEYERS, *Administrative Patent Judges*.

FISCHETTI, Administrative Patent Judge.

### **DECISION ON APPEAL**

### STATEMENT OF THE CASE

Appellants seek our review under 35 U.S.C. § 134 of the Examiner's final rejection of claims 1–20. We have jurisdiction under 35 U.S.C. § 6(b).

### SUMMARY OF DECISION

We AFFIRM IN PART and enter a new ground of rejection pursuant to our authority under 37 C.F.R. § 41.50(b).

<sup>&</sup>lt;sup>1</sup> Appellants identify The Boeing Company as the real party in interest. (Appeal Br. 2.)

#### THE INVENTION

Appellants claim a "system and method for project simulation and analysis, and for generating a graphical representation of project simulation results." (Spec. para 1.)

Claim 1, reproduced below, is representative of the subject matter on appeal.

1. A method for generating a project plan, the method comprising:

receiving, by a processor unit, project description information for a project comprising a plurality of tasks, the project description information comprising information describing precedence relationships between tasks, information indicating durations of the tasks, and information indicating variability in the durations of the tasks;

generating, by the processor unit, a simulation model for the project using the project description information;

running the simulation model for a plurality of runs to identify a subset of tasks forming a critical path and to generate simulation results data; and

generating a project network presentation from the simulation results data, the project network presentation including the identified subset of the tasks forming the critical path.

### THE REJECTION

The Examiner relies upon the following as evidence of unpatentability:

Corman	US 2004/0267584 A1	Dec. 30, 2004
Poulsen	US 2006/0277487 A1	Dec. 7, 2006
Newpol	US 2011/0302090 A1	Dec. 8, 2011

The following rejections are before us for review.

Claims 1–4, 6–13, and 15–20 are rejected under 35 U.S.C. § 103(a) as unpatentable over Newpol and Poulsen.

Claims 5 and 14 are rejected under 35 U.S.C. § 103(a) as unpatentable over Newpol, Poulsen, and Corman.

### FINDING OF FACT

### 1. Newpol discloses,

With Statistical Distributions for project tasks available, any progress point in a project (including the overall project completion) may be examined to determine the end date, given an assumed likelihood or confidence value, or alternatively, the chance of completing the tasks by a specific date can be easily obtained. This allows rapid analysis of 'what-if' scenarios, such as the effect of resource changes, overall impact of specific task estimates or pre-requisites, and various re-loading scenarios.

Para. 61.

### **ANALYSIS**

# 35 U.S.C. § 103 REJECTION

Each of independent claims 1 and 10 require in one form or another,

"generating, by the processor unit, a simulation model for the project using the project description information;

running the simulation model for a plurality of runs to identify a subset of tasks forming a critical path and to generate simulation results data."

# Appellants argue,

Appellant[s] show[] that Newpol does not run a simulation model for a plurality of runs to identify a subset of tasks forming a critical path, as claimed. To understand why, first one must identify what the Office Action asserts is the simulation model in Newpol. The Office Action does not state what feature in Newpol is the claimed simulation model, but does cite paragraphs 51 and 61 of Newpol. However, in paragraphs 50 and 51 Newpol refers to the "operation of the invention," and "in this approach a project is considered a set of tasks to be completed..." The completion of a tasks [sic] is modeled as a random event within a given set of probabilities. Newpol, paragraph 51. In paragraph 61 Newpol refers to "statistical distributions for project tasks available". again, Newpol is referring to his own technique of statistical project management.

# (Appeal Br. 8.)

The Examiner found that generating a simulation model is disclosed at paragraphs 51 and 61 in Newpol. (Final Act. 6.) "Para [0061] of Newpol shows 'This allows rapid analysis of 'what-if' scenarios, such as the effect of resource changes, overall impact of specific task estimates or pre-requisites, and various re-loading scenarios." (Answer 4.)

We agree with Appellants. We find that while the "what if" scenarios correspond to at least one simulation model, the rapid analysis of these "what if" scenarios do not result in the claimed "running the simulation model for a plurality of runs to identify a subset of tasks forming a critical path and to generate simulation results data." According to Newpol at paragraph 51, modeling occurs for each task and a probability is assigned to each task. Thus, it is clear the subset of tasks are already identified when the "what if" scenarios are run. The result is an evaluation of the already prescribed tasks, "as the effect of resource changes, overall impact of specific task estimates or pre-requisites, and various re-loading scenarios. As tasks are completed or estimates updated, the changes in such values may be tracked to give planners and managers an immediate evaluation of the changing risk associated with the project." (FF. 1).

Therefore we will not sustain the rejection of independent claims 1 and 10, nor claims 2–9 and 11–18 which depend therefrom.

Claim 19 differs in scope from that of claims 1 and 10 in that it does not require, "running the simulation model for a plurality of runs to identify a subset of tasks forming a critical path and to generate simulation results data", and thus the analysis above does not apply. Concerning independent claim 19, we adopt as our own the Examiner's finding for claims 19 and 20 as set forth on page 11-12 of the Final Action. Appellants do not advance any argument in their Appeal Brief to claims 19 and 20. The Examiner's Answer does not raise any new issue concerning these claims except to point

out that Appellants' arguments do not cover the content of claims 19 and 20. (Answer 3). Thus, we summarily affirm the rejection of claims 19 and 20. Arguments which Appellants could have made, but chose not to make in their Brief have not been considered and are deemed to be waived. See 37 C.F.R. § 41.37(c)(l)(iv) (2012).

The following new ground of rejection is entered pursuant to 37 C.F.R. § 41.50(b). Claims 1-20 are rejected under 35 U.S.C. § 101 as directed to non-statutory subject matter.

## The Supreme Court

set forth a framework for distinguishing patents that claim laws of nature, natural phenomena, and abstract ideas from those that claim patent-eligible applications of those concepts. First . . . determine whether the claims at issue are directed to one of those patent-ineligible concepts. If so, we then ask, "[w]hat else is there in the claims before us?" To answer that question, consider the elements of each claim both individually and "as an ordered combination" to determine whether the additional elements "transform the nature of the claim" into a patent-eligible application. [The Court] described step two of this analysis as a search for an "inventive concept"—*i.e.*, an element or combination of elements that is "sufficient to ensure that the patent in practice amounts to significantly more than a patent upon the [ineligible concept] itself."

Alice Corp., Pty. Ltd. v CLS Bank Intl, 134 S. Ct. 2347, 2355 (2014) (citations omitted) (citing Mayo Collaborative Servs. v. Prometheus Labs., Inc., 132 S. Ct. 1289 (2012)).

To perform this test, we must first determine whether the claims at issue are directed to a patent-ineligible concept.

We find that the claims themselves provide enough information to inform one as to what they are directed to.

Claim 1, which is representative of claim 10 as well, recites, receiving project description information for a project comprising a plurality of tasks, the project description information comprising information describing precedence relationships between tasks, information indicating durations of the tasks, and information indicating variability in the durations of the tasks; generating, a simulation model for the project using the project description information; running the simulation model for a plurality of runs to identify a subset of tasks forming a critical path and to generate simulation results data; and generating a project network presentation from the simulation results data, the project network presentation including the identified subset of the tasks forming the critical path.

Each of these steps, including the information descriptions, all involve mental steps and/or thought. Receiving project description information is mentally manifested by reading or hearing information. What the information indicates is also a matter of mental comprehension. Generating a simulation model is again a matter of thought process whereby a person thinks about scenarios based on the indicated information.

Likewise, concerning independent claim 19, the noting of nodes corresponding to the tasks and edges connecting the nodes to indicate a relationship between the nodes is a mere matter of mental organization and noting by highlighting nodes is a matter of mentally marking to indicate

likelihoods that corresponding tasks are on the critical path is again a mere matter of mental thought.

It follows from prior Supreme Court cases, and *Bilski* in particular, that the claims at issue here are directed to an abstract idea. Like the risk hedging in *Bilski*, the concept of repeating scenarios of an event or project to identify a subset of tasks forming a critical path is a fundamental practice long prevalent in human endeavor to effect efficiency, and hence profitability, of the enterprise. *Bilski v. Kappos*, 561 U.S. 593 (2010). Thus, the concept of repeating scenarios of an event or project to identify a subset of tasks forming a critical path, like hedging, is an "abstract idea" beyond the scope of § 101. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2356.

As in *Alice*, we need not labor to delimit the precise contours of the "abstract ideas" category in this case. It is enough to recognize that there is no meaningful distinction in the level of abstraction between the concept of risk hedging in *Bilski* and the concept of repeating scenarios of a project to identify a subset of tasks forming a critical path. Both are squarely within the realm of "abstract ideas" as the Court has used that term. *See Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2357. We conclude that the claims at issue are directed to a patent-ineligible concept.

The introduction of a computer into the claims does not alter the analysis at *Mayo* step two.

the mere recitation of a generic computer cannot transform a patent-ineligible abstract idea into a patent-eligible invention. Stating an abstract idea "while adding the words 'apply it" is not enough for patent eligibility. Nor is limiting the use of an abstract idea "to a particular technological environment." Stating an abstract idea while adding the words "apply it with a computer" simply combines those two steps, with the same deficient result. Thus, if a patent's recitation of a computer amounts to a mere instruction to "implemen[t]" an abstract idea "on ... a computer," that addition cannot impart patent This conclusion accords with the preemption eligibility. concern that undergirds our § 101 jurisprudence. Given the of computers, wholly ubiquity generic computer implementation is not generally the sort of "additional featur[e]" that provides any "practical assurance that the process is more than a drafting effort designed to monopolize the [abstract idea] itself."

Alice Corp. Pty. Ltd., 134 S. Ct. at 2358 (alterations in original) (citations omitted).

"[T]he relevant question is whether the claims here do more than simply instruct the practitioner to implement the abstract idea . . . on a generic computer." *Alice Corp. Pty. Ltd.*, 134 S. Ct. at 2359. We find that they do not.

Taking the claim elements separately, where so recited, the function performed by the computer at each step of the process is purely conventional. Using a computer to receive, compile, compare, identify, make a determination and compile a list of data amounts to electronic data query and retrieval—one of the most basic functions of a computer. All of these computer functions are well-understood, routine, conventional activities previously known to the industry. In short, each step of the

ordered combination does no more than require a generic computer to perform generic computer functions.

"[A]fter *Alice*, there can remain no doubt: recitation of generic computer limitations does not make an otherwise ineligible claim patent-eligible. The bare fact that a computer exists in the physical rather than purely conceptual realm is 'beside the point." *DDR Holdings, LLC v. Hotels.com, L.P.*, 773 F.3d 1245, 1256 (Fed. Cir. 2014) (citation omitted).

### CONCLUSIONS OF LAW

We conclude the Examiner did err in rejecting claims 1–18 under 35 U.S.C. § 103.

We conclude the Examiner did not err in rejecting claims 19–20 under 35 U.S.C. § 103.

### **DECISION**

The decision of the Examiner to reject claims 1–18 under 35 U.S.C. § 103 is reversed.

The decision of the Examiner to reject claims 19 and 20 under 35 U.S.C. § 103 is affirmed.

We enter a new ground of rejection for claims 1-20 under 35 U.S.C. § 101 pursuant to 37 C.F.R. § 41.50(b).

This Decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b) (effective September 13, 2004), 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. & Trademark Office 21 (September

7, 2004)). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

37 CFR § 41.50(b) also provides that the appellants, WITHIN TWO MONTHS FROM THE DATE OF THE DECISION, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

- (1) Reopen prosecution. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .
- (2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a). *See* 37 C.F.R. § 1.136(a)(1)(iv).

AFFIRMED-IN-PART; 37 C.F.R. § 41.50(b)